

**theben**  
 TC 649 E 6490130  
 Control box LAN

Installation and operating instructions

310539 02

Link to the manual



<http://qr.theben.de/o/urls/420>



## 1. Basic safety information

**WARNING**

**Danger of death through electric shock or fire!**

➤ Installation should only be carried out by a qualified electrician!

- The device is designed for installation on DIN top hat rails (in accordance with IEC 60715)
- It complies with product standard EN 60669-2-1

- Do not operate the device outside the specified technical data
- ⚠ The device must be installed in an enclosed switchgear cabinet made of metal or an appropriate fire-resistant material!
- ⚠ After proper installation, the housing component under the cover must not be accessible!

## 2. Proper use

Control box TC 649 E is an annual time switch with astronomical function, which can be controlled and updated via LAN and managed centrally from a computer. The control box is used for lighting and ventilation.

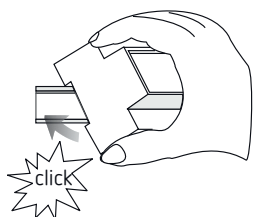
- ⚠ Do not use on safety devices, e.g. escape route doors, fire safety equipment, etc.

### Disposal

- For an environmentally appropriate disposal, send the device back to the owner

## 3. Installation and connection

### Installing TC 649 E

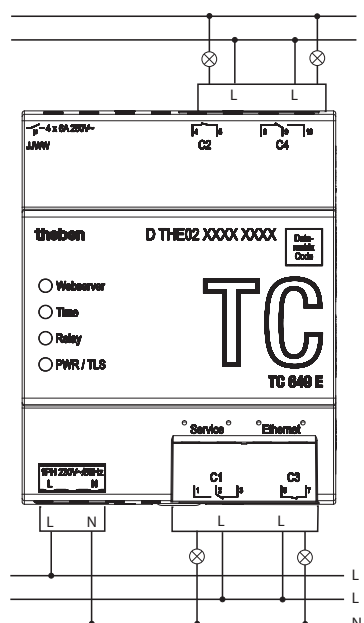


### Connecting TC 649 E

#### Connecting the power supply

- Strip cable to 8 mm (max. 9 mm)
  - Insert the line into the terminal and fasten it
  - Plug terminal into power supply socket
  - Connect to power supply
- During the start of the operating system, all LEDs are flashing. After approx. 150 s the start process is completed and the power LED (PWR/TLS) flashes.

### Wiring diagram

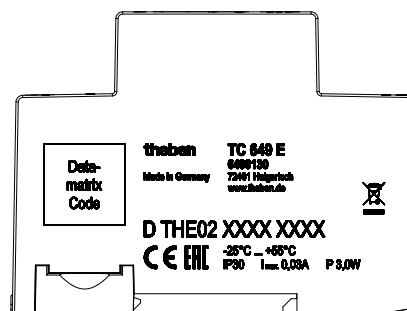
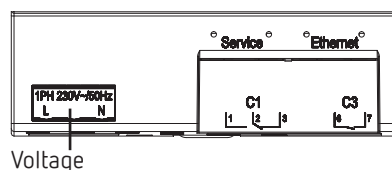
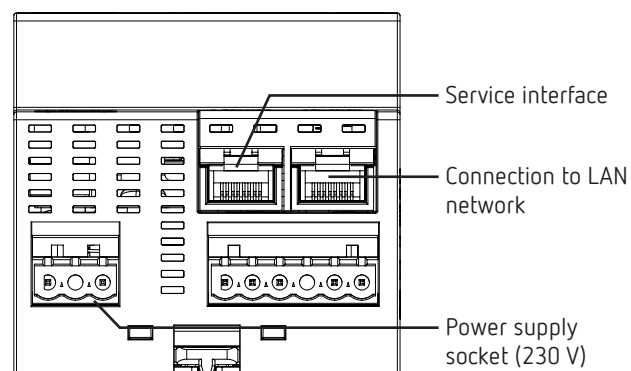


ⓘ Switch the load with a contactor.

- ⚠ If a load is switched directly, secure the device with a circuit breaker of 6 A.

## 4. Device description

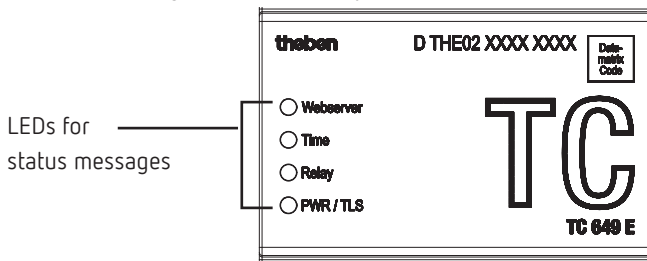
### Connections



- ⓘ The performance specifications can be found on the side and on the device shoulder (see picture). After installation they are not visible any more!

## LEDs

① Status messages are indicated by four LEDs.



Label	Description
Web server	Web server started
Time	Connection to NTP server
Relay	at least 1 relay connected
PWR/TLS	Power and TLS

## 5. Start-up

### For the professional electrician/network administrator

Link to the manual



① By default, the network interface is set to DHCP.

① For configuration with a static IP address, see <https://www.theben.de/tc-649-en/>

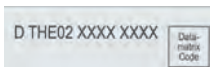
- Connect TC 649 E with the local network at LAN interface „Ethernet“.
- Connect voltage.
  - During the start of the operating system, all LEDs are flashing. After approx. 150 s the start process is completed and the power LED (PWR/TLS) flashes.

### For the operator

To use the TC 649 E device, proceed as follows:

#### Access via host name (DHCP):

- Enter the host name in the address bar of the browser (only with Google Chrome). The host name is the serial number of TC 649 E (printed on the housing)
- Example: <http://dthe0200001234>



If access via the host name does not work (depending on router), use the manual at <https://www.theben.de/tc-649-en/>

#### Access via static IP address:

- To set up access via a static IP address,
- use the manual at <https://www.theben.de/tc-649-en/>

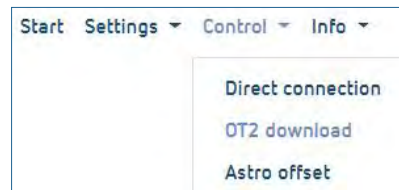
① During initial operation, enter the user name “admin” and the password “admin” to log in.

① By default, the network interface is set to DHCP. If the TC 649 E device is to be used without DHCP server, please contact your network administrator or use the manual at <https://www.theben.de/tc-649-en/>

## Download – OBELISK software

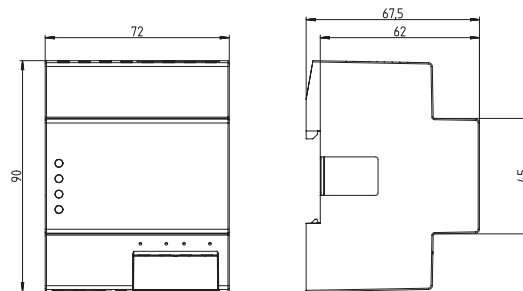
The OBELISK software is required to carry out an ot.2 download in the „Control“ menu. It can be found at

<https://www.theben.de/en/pc-set-obelisk-top2-3-9070409>



## 6. Technical data

Operating voltage:	extended operating range 230 V~, -20% +15%
Switching capacity:	6 A/250 V AC, cos φ = 1 Switching of any external conductor is permitted. Switching SELV is only permissible if both switching channels, top or bottom, switch SELV.
Minimum load:	5 V / 1 mA
Switch contact:	μ contact
Frequency:	50 Hz
Power consumption:	3 W
Set operating range:	-10 °C to +45 °C
Threshold for operation:	-25 °C to +55 °C
Threshold for storage and transport:	-25 °C to +70 °C
Humidity:	95%, non-condensing
Protection class:	II subject to designated installation
Protection rating:	IP 30



## 7. Contact

#### Service address

Theben AG  
Hohenbergstr. 32  
72401 Haigerloch  
GERMANY  
Phone +49 7474 692-0  
Fax +49 7474 692-150

#### Hotline

Phone +49 7474 692-369  
[hotline@theben.de](mailto:hotline@theben.de)

#### Addresses, telephone numbers etc.

[www.theben.de](http://www.theben.de)

## 8. Use of open source software

① This product uses open source software (OSS). A list of the OSS components used and their licence type and version can be found at <https://www.theben.de/tc-649-en/>

① If you need to connect groups of devices, please contact the Theben hotline.